

ANNALES ZOOLOGICI

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Acerentomon dispar sp. n., nowy gatunek z rzędu *Protura*
z Polski

Acerentomon dispar sp. n., новый вид из отряда *Protura*
из Польши

Acerentomon dispar sp. n., a new species of the order
Protura from Poland

[Pl. II—III]

Among abundant material of *Apterygota* collected by me in the Tatry-Mountains I have found two species of the order *Protura*, namely *Eosentomon armatum* STACH and a species of the genus *Acerentomon* SILV. which was unknown up to-day.

I am giving here the description of this species which I name *Acerentomon dispar* sp. n.

Length of completely extended specimens in mature males 2260—2280 μ , in females only 1850 μ .

Head seen from above egg-like in shape. Labrum produced in front in a relatively long rostrum. Length of head, measured from its back to the pair of long setae inserted on each side of the basis of the rostrum in males 190—226 μ , in females 194 μ , length of rostrum in males 60—62 μ , in females 44 μ . Ratio of head length to extension of labrum (LR) in males 3,2—3,7, in females 4,4. Head furnished dorsally in median line with five pairs of long, stiff setae standing pretty closely together, and near the back with four slightly shorter setae

arranged in a transversal row. Moreover, some short setae scattered laterally on the head. Appendage of the maxillar gland moderately long and thick.

Thoracal segments, well chitinized in mature specimens, have in front of meso- and metatergites distinctly developed transversal apodemes.

The long first pair of legs protrudes with its tips beyond the front of the body for a distance equal to the length of the whole head. Claw bow-like, curved at the tip and armed ventrally with a very fine tooth, $44-48\ \mu$ long. Length of tarsus in males $132-140\ \mu$, in females $120\ \mu$. Ratio of tarsus length to claw length (TR) $2,6-2,9$. Empodial appendage short, spine-like. Tarsus furnished with long setae, about one and a half time as long as the claw, on the dorsal side near the insertion of the claw with a scythe-like, and further with a club-like sensory feather, and moreover with some long but fine sensory hairs dorsally and a group of three hairs on the inner side. Second and third pair of legs have a bow-like, curved claw, armed with a pair of lateral teeth, and close to the base of the claw with short, spine-like setae. Empodial appendage stronger and longer than that of the first pair of legs, sensory feathers, however, absent. Length of tarsus of the second pair of legs in males $68-74\ \mu$, in females $60\ \mu$, of the claw in males $26-28\ \mu$, in females $20\ \mu$; ratio of these dimensions in males $2,3-2,6$, in females $3,0$. Length of tarsus of the third pair of legs in males $76-80\ \mu$, in females $70\ \mu$, of the claw in males $28-34\ \mu$, in females $28\ \mu$; ratio of these dimensions in males $2,2-2,8$, in females $2,5$.

Of the abdominal appendages (stylopodes) only the first have two joints; the second and the third consist of one joint.

All abdominal segments well chitinized. Transversal apodemes of segments I—VIII distinctly developed. Tergal apodemes on anterior segments somewhat thickened medially, considerably curved and ramified laterally.

Setae on abdominal tergites long and arranged similarly as in most species of the genus *Acerentomon* SILV. On tergite I 6 setae of equal length in the anterior row and 12 in the posterior one, 4 of which are fine and short. On each of the tergites II—VI in the anterior row 8 setae of equal length and in the posterior row 12 setae, 4 of which fine and short. The

number of setae on tergite VII and the following tergites is different. On tergite VII 8 setae of equal length in the anterior row, one seta on each side a little behind, near the suture between the tergite and the pleurite, and 17 setae in the posterior transversal row, namely on each side of the tergite 4 long setae and 4 short ones, moreover one fine seta standing in half of the length of the hind margin of the tergite; totally on tergite VII 27 setae. On tergite VIII only long setae, 6 in the anterior row, 4 in a small irregular median row, 3 in the posterior row on each side of the comb, and moreover one seta in half of the length of the hind margin of the tergite; totally on tergite VIII 19 setae. Tergite of segment IX with 10 setae only, all arranged on the hind margin; tergite X only with 8 setae, and tergite XI with 7.

The comb of tergite VIII vary in the number and the shape of the teeth; their number is 9–15, and they may be of irregular length and unequal width, or some of them forked. Over the anterior row of setae runs on tergite VIII an indistinct transversal row of minute teeth. A similar row of minute teeth appears on the sternite of segment VIII and on the hind margin of the pleurite. Small combs with fine teeth are found also laterally on the anterior margin of tergite VI, and sometimes on the hind margins of some pleurites, e. g. of segment X.

Abdominal pleurites distinctly separated from other parts, especially from the sternites, furnished on each of the segments II–VI with two long and one short seta, on segments VII–IX with two long setae, and on segments X–XI with one seta only.

Chaetotaxy of the sternites as follows: abdominal sternite I with an anterior row of 3 long setae and in the posterior row on each side with a pair of very short, fine setulae; sternite II in the anterior row with 5 long setae (rarely 6) and in the posterior with 5, of which the second and the fourth seta short and fine; sternites III in the anterior row with 6 or 7 long setae and in the posterior row with 5 arranged similarly as on sternite II; sternites IV and V in the anterior row with 7 long setae and in the posterior row with 8 setae of which the third and the sixth short and fine; in younger specimens 2 setae in the anterior row are absent on these sternites; sternite VI with a similar arrangement and number of setae as sternites IV

and V, but in the anterior row one seta is sometimes absent; sternite VII in the anterior row with 5 long setae, and in the posterior row with 9 of which the third, fifth and seventh short; sternite VIII with 4 long setae in the anterior row and 2 short ones in the posterior; sternites IX and X, each with only one row of 4 long setae; sternite XI with 4 long setae in the anterior row, and 2 slightly shorter ones in the posterior row.

The genital organ of the male does not differ from that in other species of the genus. The genital organ of the female is furnished with a much greater number of setae than e. g. in *Acerentomon doderoi* SILV.

Colour of mature specimens yellow.

Localities where the above specimens were found:

Tatry-Mountains: Cyrla, under moist loose bark of an old spruce-stump, about 950 m alt., 28 VII 1918, 2 specimens; Valley Pięciu Stawów Polskich, in needle-litter among *Pinus mughus* SCOP., about 1700 m alt., 16 VII 1918, 1 specimen; Kopki in Kościeliska-Valley, in moss and needle-litter at the foot of an old spruce-stump, about 1200 m alt., 8 VIII 1923, 4 specimens, and in humus soil covered with needle-litter, 24 VII 1934, 1 specimen; Łysanki, in sifted humus soil on the border of a forest, about 1180 m alt., 8 VII 1936, 1 specimen; Hala Gąsienicowa, alpine meadow, in needle-litter, about 1650 m alt., 16 VIII 1953, 10 specimens.

Beskidy-Mountains: Krynica, in moss and needle-litter, 12 VII 1939, 3 specimens.

The new species stands nearest to *Acerentomon gallicum* JONESCO, 1933, from France (1), with which it agrees in the similar chaetotaxy of most abdominal segments, and the rather similar ratio of tarsal length to the length of the claw on the fore legs, and also in the length of the head compared with the extension of the labrum. It differs in the number of setae on abdominal tergites VII — X and in the size of the body.

It differs also from *Acerentomon doderoi* SILVESTRI, 1907 (2), a common species in many countries of Europe, and still more from *Acerentomon nemorale* WOMERSLEY, 1927 (3), known from England, France and Germany.

LITERATURE

1. JONESCO M. A. Contribution à la connaissance de la faune des Protoures d'Europe. Bull. Soc. Zool. France, Paris, **58**, 1933, pp. 107—120.
2. SILVESTRI F. Descrizione di un nuovo genere di Insetti Apterigotti rappresentante di un nuovo ordine. Boll. Lab. Zool. Gen. Agr., Portici, **1**, 1907, pp. 296—311.
3. WOMERSLEY H. Notes on the British species of *Protura*, with descriptions of new genera and species. Ent. Monthly Mag., London, **63**, 1927, pp. 140—154.

EXPLANATION OF PLATES

Plate II

- Fig. 1. *Acerentomon dispar* sp. n., abdominal segments VII and VIII in lateral view; $\times 240$.
- Fig. 2. *Acerentomon dispar* sp. n., head in lateral view; $\times 240$.
- Fig. 3—5. *Acerentomon dispar* sp. n., combs of tergite VIII of various specimens; $\times 450$.

Plate III

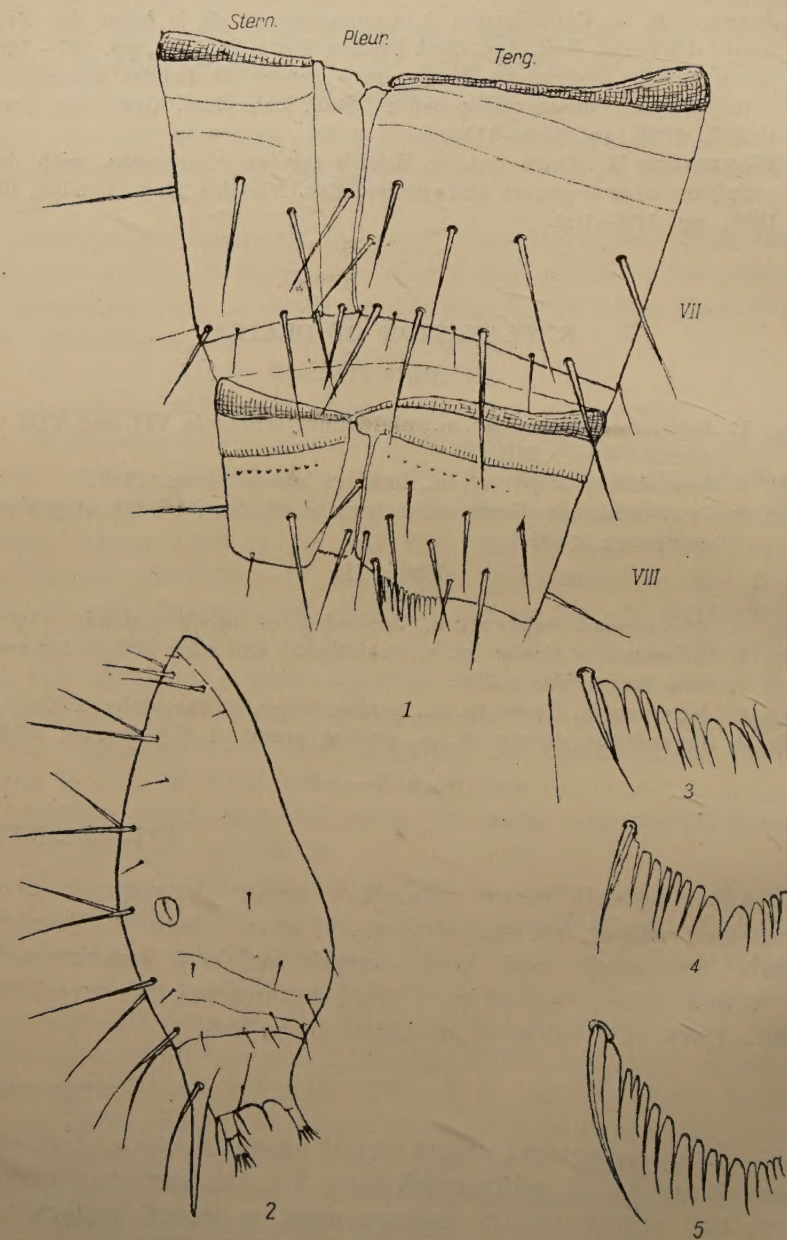
- Fig. 6. *Acerentomon dispar* sp. n., appendage of maxillar gland; $\times 1000$.
- Fig. 7. *Acerentomon dispar* sp. n., tibiotarsus and claw of fore leg seen from inner side; $\times 500$.
- Fig. 8. *Acerentomon dispar* sp. n., genital organ of the male; $\times 500$.
- Fig. 9. *Acerentomon dispar* sp. n., genital organ of the female; $\times 500$.

STRESZCZENIE

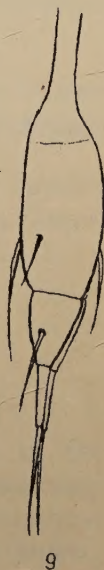
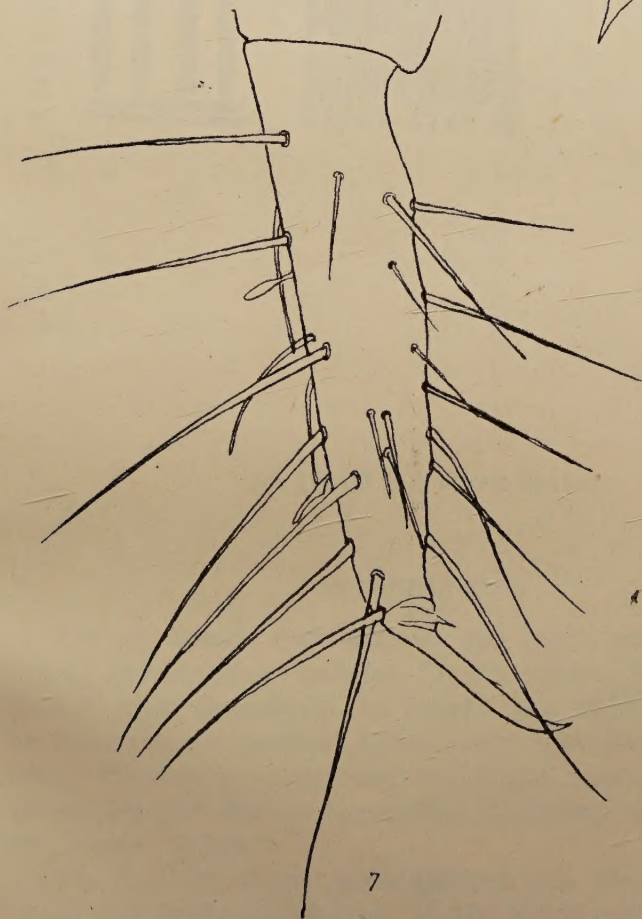
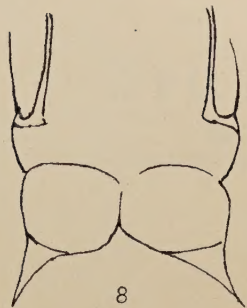
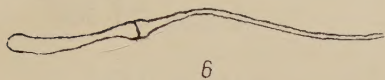
Autor opisuje nowy gatunek z rzędu pierwogonek, *Acerentomon dispar* sp. n., znaleziony przez niego w Tatrach, gdzie występuje pod korą starych pniaków świerkowych, w ściółce leśnej, we mchu i ziemi humusowej, na wysokości 900—1700 m, a także w Beskidzie Sądeckim.

РЕЗЮМЕ

Автор описывает новый вид из отряда *Protura*, *Acerentomon dispar* sp. n., найденный им в Татрах, где он встречается под корой старых еловых пней, в лесной подстилке, во мху и гумусовой почве, на высоте 900—1700 м, а также в Сондецком Бескиде.



Auctor del.
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